

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 148, 261, 268, and 271

RIN 2050 AE05

[FRL 5816-5]

Land Disposal Restrictions--Phase IV: Treatment Standards for Wood Preserving Wastes, Paperwork Reduction and Streamlining, Exemptions From RCRA for Certain Processed Materials; and Miscellaneous Hazardous Waste Provisions

AGENCY: Environmental Protection Agency (EPA, the Agency).

ACTION: Final rule.

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**SUMMARY:** The Agency is finalizing treatment standards for hazardous wastes generated from wood preserving operations, and is making a conforming amendment to the standard for wastes from production of chlorinated aliphatics which carry the F024 hazardous waste code. These treatment standards will minimize threats to human health and the environment posed by these wastes. In addition, this final rule revises the land disposal restrictions (LDR) program to significantly reduce paperwork requirements by 1.6 million hours. This rule also finalizes both the decision to employ polymerization as an alternative method of treatment for certain ignitable wastes as well as the decision not to ban certain wastes from biological treatment because there is no need to classify these wastes as "nonamenable." It also clarifies an exception from LDR requirements for de minimis amounts of characteristic wastewaters. Finally, this rule excludes processed circuit boards and scrap metal from RCRA regulation which is intended to promote the goal of safe recycling.

EFFECTIVE DATE: This final rule is effective on August 11, 1997 except §§ 148.18(b) and 268.30(b), which are effective on May 12, 1999.

ADDRESSES: The public docket for this rulemaking is available for public inspection at EPA's RCRA Docket, located at Crystal Gateway, First Floor, 1235 Jefferson Davis Highway, Arlington, Virginia. The regulatory docket for this final rule contains a number of background materials. To obtain a list of these items, contact the RCRA Docket at 703-603-9230 and request the list of references in EPA Docket #F-97-PH4F-FFFFF.

FOR FURTHER INFORMATION CONTACT: The RCRA Hotline between 9:00 a.m.-6:00 p.m. EST, toll-free, at 800-424-9346; (703) 412-9810 from Government phones or if in the Washington, DC local calling area; or 800-553-7672 for the hearing impaired. For more detailed information on specific aspects of the rulemaking, contact the Waste Treatment Branch (5302W), Office of Solid Waste (OSW), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; phone (703) 308-8434. For technical information on the treatment standards for wood preserving wastes, ask for Nick Vizzone; for information on paperwork reduction and clean-up of Part 268, call Rhonda Minnick at (703) 308-8771 or Nick Vizzone at (703) 308-8460. Contact Kristina Meson at (703) 308-8488 for information on the exclusions for scrap metal and shredded circuit boards. Call Pan Lee at (703) 308-8478 for information on the capacity analyses. For questions on the regulatory impact analyses, contact Paul Borst at (703) 308-0481. For other questions, call Sue Slotnick at (703) 308-8434.

>>>> The preamble has not been included in this file. <<<<

For the reasons set out in the preamble, Title 40, chapter I of the Code of Federal Regulations is amended as follows:

>>>> Part 148 has not been included because it is not required as part of a State's Hazardous Waste Program. <<<<

## PART 261--IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### Subpart A--General

3. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

4. Section 261.1 is amended by adding paragraphs (c) (9) through (12) to read as follows:

§ 261.1 Purpose and scope.

\* \* \* \* \*

(c) \* \* \*

(9) "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) "Processed scrap metal" is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap

metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated. (Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (§ 261.4(a)(13)).

(11) "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) "Prompt scrap metal" is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

5. Section 261.2(c) is amended by revising table 1 to read as follows:

§ 261.2 Definition of solid waste.

\* \* \* \* \*

(c) \* \* \*

Table 1

	Use constitu- ting disposal (§261.2(c)(1))	Energy recovery/fuel (§261.2(c)(2))	Reclamation (§261.2(c)(3))	Speculative accumulation (§261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials .....	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32 .....	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste .....	(*)	(*)	.....	(*)
By-products (listed in 40 CFR 261.31 or 261.32) .....	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste .....	(*)	(*)	.....	(*)
Commercial chemical products listed in 40 CFR 261.33 .....	(*)	(*)	.....	.....
Scrap metal other than excluded scrap metal (see 261.1(c)(9)) .....	(*)	(*)	(*)	(*)

Note: The terms "spent materials", "sludges", "by-products", and "scrap metal" and "processed scrap metal" are defined in §261.1.

\* \* \* \* \*

6. Section 261.4(a) is amended by adding paragraphs (a) (13) and (14) to read as follows:

§ 261.4 Exclusions.

(a) \* \* \*

(13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

(14) Shredded circuit boards being recycled provided that they are:

(i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

\* \* \* \* \*

7. Section 261.6 is amended by revising paragraph (a)(3)(ii) to read as follows:

§ 261.6 Requirements for recyclable materials.

(a) \* \* \*

(3) \* \* \*

(ii) Scrap metal that is not excluded under § 261.4(a)(13);

\* \* \* \* \*

## PART 268--LAND DISPOSAL RESTRICTIONS

8. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

### Subpart A--General

9. Section 268.1 is amended by revising paragraph (e) to read as follows:

§ 268.1 Purpose, scope and applicability.

\* \* \* \* \*

(e) The following hazardous wastes are not subject to any provision of part 268:

(1) Waste generated by small quantity generators of less than 100 kilograms of non-acute hazardous waste or less than 1 kilogram of acute hazardous waste per month, as defined in § 261.5 of this chapter;

(2) Waste pesticides that a farmer disposes of pursuant to § 262.70;

(3) Wastes identified or listed as hazardous after November 8, 1984 for which EPA has not promulgated land disposal prohibitions or treatment standards;

(4) De minimis losses of characteristic wastes to wastewaters are not considered to be

prohibited wastes and are defined as losses from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.

\* \* \* \* \*

10. Section 268.4 is amended by revising paragraphs (a)(2)(iv), and (a)(4) introductory text to read as follows:

§ 268.4 Treatment surface impoundment exemption.

(a) \* \* \*

(2) \* \* \*

(iv) Recordkeeping: Sampling and testing and recordkeeping provisions of §§ 264.13 and 265.13 of this chapter apply.

\* \* \* \* \*

(4) The owner or operator submits to the Regional Administrator a written certification that the requirements of § 268.4(a)(3) have been met. The following certification is required:

\* \* \* \* \*

11. Section 268.7 is amended by revising the section heading: revising paragraph (a); by removing paragraph (b)(2) and redesignating paragraphs (b)(3) through (b)(7) as (b)(2) through (b)(6) respectively; and by revising the introductory text of paragraph (b), and revising paragraphs (b)(1), newly designated paragraphs (b)(2) through (b)(4), (c)(1), and (c)(2) to read as follows:

§ 268.7 Testing, tracking, and recordkeeping requirements for generators, treaters, and disposal facilities.

(a) Requirements for generators: (1) Determine if the waste has to be treated before being land disposed, as follows: A generator of a hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in § 268.40 or § 268.45. This determination can be made in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as referenced in § 260.11 of this chapter, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed. These treatment standards are also found in § 268.40, and are described in detail in § 268.42, Table 1. These wastes do not need to be tested (however, if they are

in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of § 268.9 of this part in addition to any applicable requirements in this section.

(2) If the waste does not meet the treatment standard: With the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice must include the information in column "268.7(a)(2)" of the Generator Paperwork Requirements Table in § 268.7(a)(4). No further notification is necessary until such time that the waste or facility change, in which case a new notification must be sent and a copy placed in the generator's file.

(3) If the waste meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice must include the information indicated in column "268.7(a)(3)" of the Generator Paperwork Requirements Table in § 268.7(a)(4) and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) If the waste changes, the generator must send a new notice and certification to the receiving facility, and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under § 261.3(f) of this chapter are not subject to these requirements.

(4) For reporting, tracking and recordkeeping when exceptions allow certain wastes that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under § 268.5, disposal in a no-migration unit under § 268.6, or a national capacity variance or case-by-case capacity variance under subpart C of this part. If a generator's waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column "268.7(a)(4)" of the Generator Paperwork Requirements Table below. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in their files.

Generator Paperwork Requirements Table

Require information	§268.7 (a)(2)	§268.7 (a)(3)	§268.7 (a)(4)	§268.7 (a)(9)
1. EPA Hazardous Waste and Manifest numbers	✓	✓	✓	✓
2. Statement: this waste is not prohibited from land disposal			✓	
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents (for wastes that are not managed in a Clean Water Act (CWA) or CWA-equivalent facility), unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice	✓	✓		
4. The notice must include the applicable wastewater/nonwastewater category (see §§ 268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)	✓	✓		
5. Waste analysis data (when available)	✓	✓	✓	
6. Date the waste is subject to the prohibition			✓	
7. For hazardous debris, when treating with the alternative treatment technologies provided by § 268.45: the contaminants subject to treatment, as described in § 268.45(b); and an indication that these contaminants are being treated to comply with § 268.45	✓		✓	
8. A certification is needed (see applicable section for exact wording)		✓		✓



(5) If a generator is managing and treating prohibited waste in tanks, containers, or containment buildings regulated under 40 CFR 262.34 to meet applicable LDR treatment standards found at § 268.40, the generator must develop and follow a written waste analysis plan which describes the procedures they will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table 1, § 268.45, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator's records, and the following requirements must be met:

(i) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this part, including the selected testing frequency.

(ii) Such plan must be kept in the facility's on-site files and made available to inspectors.

(iii) Wastes shipped off-site pursuant to this paragraph must comply with the notification requirements of § 268.7(a)(3).

(6) If a generator determines that the waste is restricted based solely on his knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as referenced in § 260.11 of this chapter, and all waste analysis data must be retained on-site in the generator's files.

(7) If a generator determines that he is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt from Subtitle C regulation, under 40 CFR 261.2 through 261.6 subsequent to the point of generation (including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at 40 CFR 261.4(a)(2), or are CWA-equivalent), he must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste, in the facility's file.

(8) Generators must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 40 CFR 261.2 through 261.6, or exempted from Subtitle C regulation, subsequent to the point of generation.

(9) If a generator is managing a lab pack containing hazardous wastes and wishes to use

the alternative treatment standard for lab packs found at § 268.42(c):

(i) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column "§ 268.7(a)(9)" in the Generator Paperwork Requirements Table of paragraph (a)(4) of this section, and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator's files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator's file.

(iii) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in § 268.2(i)) need not be determined.

(iv) The generator must also comply with the requirements in paragraphs (a)(6) and (a)(7) of this section.

(10) Small quantity generators with tolling agreements pursuant to 40 CFR 262.20(e) must comply with the applicable notification and certification requirements of paragraph (a) of this section for the initial shipment of the waste subject to the agreement. Such generators must retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(b) Treatment facilities must test their wastes according to the frequency specified in their waste analysis plans as required by 40 CFR 264.13 (for permitted TSDs) or 40 CFR 265.13 (for interim status facilities). Such testing must be performed as provided in paragraphs (b)(1), (b)(2) and (b)(3) of this section.

(1) For wastes with treatment standards expressed as concentrations in the waste extract (TCLP), the owner or operator of the treatment facility must test an extract of the treatment residues, using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in § 260.11 of this chapter), to assure that the treatment residues extract meet the applicable treatment standards.

(2) For wastes with treatment standards expressed as concentrations in the waste, the

owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that they meet the applicable treatment standards.

(3) A one-time notice must be sent with the initial shipment of waste to the land disposal facility. A copy of the notice must be placed in the treatment facility's file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility's file.

(ii) The one-time notice must include these requirements:

Treatment Facility Paperwork Requirements Table

Required information	§268.7(b)
1. EPA Hazardous Waste and Manifest numbers .....	✓
2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents (for wastes that are not managed in a Clean Water Act (CWA) or CWA-equivalent facility), unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice .....	✓
3. The notice must include the applicable wastewater/nonwastewater category (see §§ 268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide) .....	✓
4. Waste analysis data (when available) .....	✓
5. A certification statement is needed (see applicable section for exact wording) .....	✓

(4) The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(i) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.

(ii) Debris excluded from the definition of hazardous waste under § 261.3(e) of this chapter (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather than the certification requirements of this paragraph.

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in § 268.40(d), the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

\* \* \* \* \*

(c) \* \* \*

(1) Have copies of the notice and certifications specified in paragraph (a) or (b) of this section.

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the Toxicity Characteristic Leaching Procedure), described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in § 260.11 of this chapter), to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in subpart D of this part. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by § 264.13 or § 265.13 of this chapter.

\* \* \* \* \*

12. Section 268.9 is amended by revising paragraph (a) and (d)(1)(ii) to read as follows:

§ 268.9 Special rules regarding wastes that exhibit a characteristic.

(a) The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subpart D of this part. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (Part 261, Subpart D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (Part 261, Subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section. If the generator determines that their waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of § 268.42, Table 1), the generator must determine the underlying hazardous constituents (as defined at § 268.2(i)) in the characteristic waste.

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents (as defined in § 268.2(i)), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.

\* \* \* \* \*

Subpart C--Prohibitions on Land Disposal

13. Section 268.30 is revised to read as follows:

§ 268.30 Waste specific prohibitions--wood preserving wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in 40 CFR part 261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) of this part.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in Subpart D of this part;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under § 268.44; or

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

(e) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of § 268.48 of this part, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

§§ 268.32, 268.33, 268.34, 268.35 and 268.36 [Removed and Reserved]

14. Sections 268.32, 268.33, 268.34, 268.35, and 268.36 are removed and reserved.

#### Subpart D--Treatment Standards

15. In § 268.40 the Table of Treatment Standards is amended by adding, in alpha-numerical order, entries for F032, F034, and F035, and revising entries for D001, F024 to read as follows:

§ 268.40 Applicability of treatment standards.

\* \* \* \* \*

Treatment Standards for Hazardous Wastes

[Note: NA means not applicable]

Waste code	Waste description and treatment/regulatory subcategory <sup>1</sup>	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS <sup>2</sup> No.	Concentration in mg/l <sup>3</sup> ; or technology code <sup>4</sup>	Concentration in mg/kg <sup>5</sup> unless noted as "mg/l TCLP"; or technology code
D001 <sup>9</sup>	High TOC Ignitable characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1)--Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.).	NA .....	NA	NA .....	RORGS; CMBST; OR POLYM
	*	*	*	*	*
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.31 or § 261.32.).	All F024 wastes .....	NA	CMBST <sup>11</sup> .....	CMBST <sup>11</sup>
		2-Chloro-1,3-butadiene .....	126-99-8	0.057 .....	0.28
		3-Chloropropylene .....	107-05-1	0.036 .....	30
		1,1-Dichloroethane .....	75-34-3	0.059 .....	6.0
		1,2-Dichloroethane .....	107-06-2	0.21 .....	6.0
		1,2-Dichloropropane .....	78-87-5	0.85 .....	18
		cis-1,3-Dichloropropylene ...	10061-01-5	0.036 .....	18
		trans-1,3-Dichloropropylene .	10061-02-6	0.036 .....	18
		bis(2-Ethylhexyl) phthalate ..	117-81-7	0.28 .....	28
		Hexachloroethane .....	67-72-1	0.055 .....	30
		Chromium (Total) .....	7440-47-3	2.77 .....	0.86 mg/l TCLP
		Nickel .....	7440-02-0	3.98 .....	5.0 mg/l TCLP
	*	*	*	*	*

F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Acenaphthene .....	83-32-9	0.059 .....	3.4
		Anthracene .....	120-12-7	0.059 .....	3.4
		Benz(a)anthracene .....	56-55-3	0.059 .....	3.4
		Benzo(b)fluoranthene .....	205-99-2	0.11 .....	6.8
		(difficult to distinguish from benzo(k)fluoranthene)			
		Benzo(k)fluoranthene .....	207-08-9	0.11 .....	6.8
		(difficult to distinguish from benzo(b)fluoranthene)			
		Benzo(a)pyrene .....	50-32-8	0.061 .....	3.4
		Chrysene .....	218-01-9	0.059 .....	3.4
		Dibenz(a,h)anthracene .....	53-70-3	0.055 .....	8.2
		2,4-Dimethyl phenol .....	105-67-9	0.036 .....	14
		Fluorene .....	86-73-7	0.059 .....	3.4
		Hexachlorodibenzo-p-dioxins .....	NA	0.000063 or CMBST <sup>11</sup> .....	0.001 or CMBST <sup>11</sup>
		Hexachlorodibenzofurans .....	NA		0.001 or CMBST <sup>11</sup>
		Indeno (1,2,3-c,d) pyrene .....	193-39-5	0.000063 or CMBST <sup>11</sup> .....	3.4
		Naphthalene .....	91-20-3	0.0055 .....	5.6
		Pentachlorodibenzo-p-dioxins .....	NA	0.059 .....	0.001 or CMBST <sup>11</sup>
		Pentachlorodibenzofurans .....	NA	0.000063 or CMBST <sup>11</sup> .....	0.001 or CMBST <sup>11</sup>
		Pentachlorophenol .....	87-86-5		7.4
		Phenanthrene .....	85-01-8	0.000035 or CMBST <sup>11</sup> .....	5.6
		Phenol .....	108-95-2		6.2
		Pyrene .....	129-00-0	0.089 .....	8.2
		Tetrachlorodibenzo-p-dioxins .....	NA	0.059 .....	0.001 or CMBST <sup>11</sup>
		Tetrachlorodibenzofurans .....	NA	0.039 .....	0.001 or CMBST <sup>11</sup>
		2,3,4,6-Tetrachlorophenol .....	58-90-2	0.067 .....	7.4
		2,4,6-Trichlorophenol .....	88-06-2	0.000063 or CMBST <sup>11</sup> .....	7.4
		Arsenic .....	7440-38-2	0.000063 or CMBST <sup>11</sup> .....	5.0 mg/l TCLP
		Chromium (Total) .....	7440-47-3		0.86 mg/l TCLP
				0.030 .....	
				0.035 .....	
				1.4 .....	
				2.77 .....	



<sup>1</sup> The waste descriptions provided in this table do not replace waste descriptions in 40 CFR part 261. Descriptions of Treatment/Regulatory

Subcategories are provided, as needed, to distinguish between applicability of different standards.

<sup>2</sup> CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

<sup>3</sup> Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

<sup>4</sup> All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in § 268.42 Table 1--Technology Codes and Descriptions of Technology-Based Standards.

<sup>5</sup> Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O, or part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in § 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

<sup>6</sup> Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment/Regulatory Subcategory or physical form (i.e., wastewater and/or nonwastewater) specified for that alternate standard.

<sup>7</sup> Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

<sup>8</sup> These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See § 268.1(c) (3) and (4)).

<sup>9</sup> These wastes, when rendered nonhazardous and then subsequently injected in a Class I SDWA well are not subject to treatment standards. (See 40 CFR part 148.1(d)).

<sup>10</sup> Between August 26, 1996, and August 26, 1997, the treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1 of this part, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this part, for wastewaters.

<sup>11</sup> For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266, (2) combustion units permitted under 40 CFR Part 264, Subpart O, or (3) combustion units operating under 40 CFR 265, Subpart O, which have obtained a determination of equivalent treatment under 268.42(b).

\* \* \* \* \*

## § 268.42 [Amended]

16. Section 268.42 is amended by adding the entry "POLYM" into Table 1.-- Technology Codes and Description of Technology-Based

Standards, in alphabetical order, to read as follows:

\* \* \* \* \*

Table 1.--Technology Codes and Description of Technology-Based Standards

Technology code	Description of technology-based standards
* * * * *	

POLYM: ..... Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.

\* \* \* \* \*

\* \* \* \* \*

17. Section 268.44 is amended by revising both entries in the "see also" column of the table in paragraph (o) to read "§ 268.40" and by revising the introductory language of paragraph (o) and the heading of the table in paragraph (o) to read as follows:

§ 268.44 Variance from a treatment standard.

\* \* \* \* \*

(o) The following facilities are excluded from the treatment standards under § 268.40 and are subject to the following constituent concentrations:

Table--Wastes Excluded from the Treatment Standards Under § 268.40.

\* \* \* \* \*

Appendices I, II, III, and X to Part 268 [Removed and Reserved]

18. Appendices I, II, III, and X to part 268 are removed and reserved.

19. The introductory language of appendix VI to part 268 is revised to read as follows:

Appendix VI to Part 268--Recommended Technologies to Achieve Deactivation of Characteristics in Section 268.42

The treatment standard for many characteristic wastes is stated in the § 268.40 Table of Treatment Standards as "Deactivation and meet UTS." EPA has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and that also contain underlying hazardous

constituents (see § 268.2(i)) must be treated not only by a "deactivating" technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the five letter technology codes established in 40 CFR 268.42 Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, and/or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

\* \* \* \* \*

20. Appendix VII to Part 268 is revised to read as follows:

Appendix VII to Part 268--LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes

Table 1.--Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRS<sup>a</sup>--Comprehensive List

Waste code	Waste category	Effective date
D001 <sup>c</sup> .....	All (except High TOC Ignitable Liquids) .....	Aug. 9, 1993.
D001 .....	High TOC Ignitable Liquids .....	Aug. 8, 1990.
D002 <sup>c</sup> .....	All .....	Aug. 9, 1993.
D003 <sup>e</sup> .....	All .....	July 8, 1996.
D004 .....	Nonwastewater .....	May 8, 1992.
D004 .....	Wastewater .....	Aug. 8, 1992.
D005 .....	All .....	Aug. 8, 1990.
D006 .....	All .....	Aug. 8, 1990.
D007 .....	All .....	Aug. 8, 1990.
D008 .....	Lead materials before secondary smelting .....	May 8, 1992.

D008 .....	All others .....	Aug. 8, 1990.
D009 .....	Nonwastewater .....	May 8, 1992.
D009 .....	All others .....	Aug. 8, 1990.
D010 .....	All .....	Aug. 8, 1990.
D011 .....	All .....	Aug. 8, 1990.
D012 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D013 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D014 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D015 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D016 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D017 (that exhibit the toxicity characteristic based on the TCLP) <sup>d</sup> ...	All .....	Dec. 14, 1994.
D018 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D018 .....	All others .....	Dec. 19, 1994.
D019 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D019 .....	All others .....	Dec. 19, 1994.
D020 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D020 .....	All others .....	Dec. 19, 1994.
D021 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D021 .....	All others .....	Dec. 19, 1994.
D022 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D022 .....	All others .....	Dec. 19, 1994.

D023 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D023 .....	All others .....	Dec. 19, 1994.
D024 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D024 .....	All others .....	Dec. 19, 1994.
D025 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D025 .....	All others .....	Dec. 19, 1994.
D026 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D026 .....	All others .....	Dec. 19, 1994.
D027 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D027 .....	All others .....	Dec. 19, 1994.
D028 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D028 .....	All others .....	Dec. 19, 1994.
D029 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D029 .....	All others .....	Dec. 19, 1994.
D030 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D030 .....	All others .....	Dec. 19, 1994.
D031 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D031 .....	All others .....	Dec. 19, 1994.
D032 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D032 .....	All others .....	Dec. 19, 1994.
D033 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.

D033 .....	All others .....	Dec. 19, 1994.
D034 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D034 .....	All others .....	Dec. 19, 1994.
D035 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D035 .....	All others .....	Dec. 19, 1994.
D036 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D036 .....	All others .....	Dec. 19, 1994.
D037 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D037 .....	All others .....	Dec. 19, 1994.
D038 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D038 .....	All others .....	Dec. 19, 1994.
D039 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D039 .....	All others .....	Dec. 19, 1994.
D040 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D040 .....	All others .....	Dec. 19, 1994.
D041 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D041 .....	All others .....	Dec. 19, 1994.
D042 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D042 .....	All others .....	Dec. 19, 1994.
D043 .....	Mixed with radioactive wastes .....	Sept. 19, 1996.
D043 .....	All others .....	Dec. 19, 1994.

F001 .....	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F001 .....	All others .....	Nov. 8, 1986.
F002 (1,1,2-trichloroethane) .....	Wastewater and Nonwastewater .....	Aug. 8, 1990.
F002 .....	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F002 .....	All others .....	Nov. 8, 1986.
F003 .....	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F003 .....	All others .....	Nov. 8, 1986.
F004 .....	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F004 .....	All others .....	Nov. 8, 1986.
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane) .....	Wastewater and Nonwastewater .....	Aug. 8, 1990.
F005 .....	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988.
F005 .....	All others .....	Nov. 8, 1986.
F006 .....	Wastewater .....	Aug. 8, 1990.
F006 .....	Nonwastewater .....	Aug. 8, 1988.
F006 (cyanides) .....	Nonwastewater .....	July 8, 1989.
F007 .....	All .....	July 8, 1989.
F008 .....	All .....	July 8, 1989.
F009 .....	All .....	July 8, 1989.
F010 .....	All .....	June 8, 1989.
F011 (cyanides) .....	Nonwastewater .....	Dec. 8, 1989.
F011 .....	All others .....	July 8, 1989.
F012 (cyanides) .....	Nonwastewater .....	Dec. 8, 1989.
F012 .....	All others .....	July 8, 1989.
F019 .....	All .....	Aug. 8, 1990.
F020 .....	All .....	Nov. 8, 1988.
F021 .....	All .....	Nov. 8, 1988.



F025 .....	All .....	Aug. 8, 1990.
F026 .....	All .....	Nov. 8, 1988.
F027 .....	All .....	Nov. 8, 1988.
F028 .....	All .....	Nov. 8, 1988.
F032 .....	Mixed with radioactive wastes .....	May 12, 1999
F032 .....	All others .....	May 12, 1997
F033 .....	Mixed with radioactive wastes .....	May 12, 1999
F033 .....	All others .....	May 12, 1997
F034 .....	Mixed with radioactive wastes .....	May 12, 1999
F034 .....	All others .....	May 12, 1997
F037 .....	Not generated from surface impoundment cleanouts or closures ....	June 30, 1993.
F037 .....	Generated from surface impoundment cleanouts or closures .....	June 30, 1994.
F037 .....	Mixed with radioactive wastes .....	June 30, 1994.
F038 .....	Not generated from surface impoundment cleanouts or closures ....	June 30, 1993.
F038 .....	Generated from surface impoundment cleanouts or closures .....	June 30, 1994.
F038 .....	Mixed with radioactive wastes .....	June 30, 1994.
F039 .....	Wastewater .....	Aug. 8, 1990.
F039 .....	Nonwastewater .....	May 8, 1992.
K001 (organics) <sup>b</sup> .....	Al .....	Aug. 8, 1988.
K001 .....	All others .....	Aug. 8, 1988. .
K002 .....	All .....	Aug. 8, 1990.
K003 .....	All .....	Aug. 8, 1990.
K004 .....	Wastewater .....	Aug. 8, 1990.
K004 .....	Nonwastewater .....	Aug. 8, 1988.
K005 .....	Wastewater .....	Aug. 8, 1990.
K005 .....	Nonwastewater .....	June 8, 1989.
K006 .....	All .....	Aug. 8, 1990.
K007 .....	Wastewater .....	Aug. 8, 1990.
K007 .....	Nonwastewater .....	June 8, 1989.
K008 .....	Wastewater .....	Aug. 8, 1990.
K008 .....	Nonwastewater .....	Aug. 8, 1988.

K009 .....	All .....	June 8, 1989.
K010 .....	All .....	June 8, 1989.
K011 .....	Wastewater .....	Aug. 8, 1990.
K011 .....	Nonwastewater .....	June 8, 1989.
K013 .....	Wastewater .....	Aug. 8, 1990.
K013 .....	Nonwastewater .....	June 8, 1989.
K014 .....	Wastewater .....	Aug. 8, 1990.
K014 .....	Nonwastewater .....	June 8, 1989.
K015 .....	Wastewater .....	Aug. 8, 1988.
K015 .....	Nonwastewater .....	Aug. 8, 1990.
K016 .....	Al .....	Aug. 8, 1988.
K017 .....	All .....	Aug. 8, 1990.
K018 .....	All .....	Aug. 8, 1988.
K019 .....	Al .....	Aug. 8, 1988.
K020 .....	Al .....	Aug. 8, 1988.
K021 .....	Wastewater .....	Aug. 8, 1990.
K021 .....	Nonwastewater .....	Aug. 8, 1988.
K022 .....	Wastewater .....	Aug. 8, 1990.
K022 .....	Nonwastewater .....	Aug. 8, 1988.
K023 .....	All .....	June 8, 1989.
K024 .....	All .....	Aug. 8, 1988.
K025 .....	Wastewater .....	Aug. 8, 1990.
K025 .....	Nonwastewater .....	Aug. 8, 1988.
K026 .....	All .....	Aug. 8, 1990.
K027 .....	All .....	June 8, 1989.
K028 (metals) .....	Nonwastewater .....	Aug. 8, 1990.
K028 .....	All others .....	June 8, 1989.
K029 .....	Wastewater .....	Aug. 8, 1990.
K029 .....	Nonwastewater .....	June 8, 1989.
K030 .....	All .....	Aug. 8, 1988.
K031 .....	Wastewater .....	Aug. 8, 1990.

K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.
K036	Wastewater	June 8, 1989.
K036	Nonwastewater	Aug. 8, 1988.
K037	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.
K044	All	Aug. 8, 1988.
K045	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8, 1990.
K048	Nonwastewater	Nov. 8, 1990.
K049	Wastewater	Aug. 8, 1990.
K049	Nonwastewater	Nov. 8, 1990.
K050	Wastewater	Aug. 8, 1990.
K050	Nonwastewater	Nov. 8, 1990.
K051	Wastewater	Aug. 8, 1990.
K051	Nonwastewater	Nov. 8, 1990.
K052	Wastewater	Aug. 8, 1990.
K052	Nonwastewater	Nov. 8, 1990.
K060	Wastewater	Aug. 8, 1990.

K060 .....	Nonwastewater .....	Aug. 8, 1988.
K061 .....	Wastewater .....	Aug. 8, 1990.
K061 .....	Nonwastewater .....	June 30, 1992.
K062 .....	All .....	Aug. 8, 1988.
K069 (Non-Calcium Sulfate) .....	Nonwastewater .....	Aug. 8, 1988.
K069 .....	All others .....	Aug. 8, 1990.
K071 .....	All .....	Aug. 8, 1990.
K073 .....	All .....	Aug. 8, 1990.
K083 .....	All .....	Aug. 8, 1990.
K084 .....	Wastewater .....	Aug. 8, 1990.
K084 .....	Nonwastewater .....	May 8, 1992.
K085 .....	All .....	Aug. 8, 1990.
K086 (organics) <sup>b</sup> .....	All .....	Aug. 8, 1988.
K086 .....	All others .....	Aug. 8, 1988.
K087 .....	All .....	Aug. 8, 1988.
K088 .....	Mixed with radioactive waste .....	Apr. 8, 1998.
K088 .....	All others .....	Jan. 8, 1997.
K093 .....	All .....	June 8, 1989.
K094 .....	All .....	June 8, 1989.
K095 .....	Wastewater .....	Aug. 8, 1990.
K095 .....	Nonwastewater .....	June 8, 1989.
K096 .....	Wastewater .....	Aug. 8, 1990.
K096 .....	Nonwastewater .....	June 8, 1989.
K097 .....	All .....	Aug. 8, 1990.
K098 .....	All .....	Aug. 8, 1990.
K099 .....	All .....	Aug. 8, 1988.
K100 .....	Wastewater .....	Aug. 8, 1990.
K100 .....	Nonwastewater .....	Aug. 8, 1988.
K101 (organics) .....	Wastewater .....	Aug. 8, 1988.
K101 (metals) .....	Wastewater .....	Aug. 8, 1990.
K101 (organics) .....	Nonwastewater .....	Aug. 8, 1988.

K101 (metals) .....	Nonwastewater .....	May 8, 1992.
K102 (organics) .....	Wastewater .....	Aug. 8, 1988.
K102 (metals) .....	Wastewater .....	Aug. 8, 1990.
K102 (organics) .....	Nonwastewater .....	Aug. 8, 1988.
K102 (metals) .....	Nonwastewater .....	May 8, 1992.
K103 .....	Al .....	Aug. 8, 1988.
K104 .....	All .....	Aug. 8, 1988.
K105 .....	All .....	Aug. 8, 1990.
K106 .....	Wastewater .....	Aug. 8, 1990.
K106 .....	Nonwastewater .....	May 8, 1992.
K107 .....	Mixed with radioactive wastes .....	June 30, 1994.
K107 .....	All others .....	Nov. 9, 1992.
K108 .....	Mixed with radioactive wastes .....	June 30, 1994.
K108 .....	All others .....	Nov. 9, 1992.
K109 .....	Mixed with radioactive wastes .....	June 30, 1994.
K109 .....	All others .....	Nov. 9, 1992.
K110 .....	Mixed with radioactive wastes .....	June 30, 1994.
K110 .....	All others .....	Nov. 9, 1992.
K111 .....	Mixed with radioactive wastes .....	June 30, 1994.
K111 .....	All other .....	Nov. 9, 1992.
K112 .....	Mixed with radioactive wastes .....	June 30, 1994.
K112 .....	All other .....	Nov. 9, 1992.
K113 .....	All .....	June 8, 1989.
K114 .....	Al .....	June 8, 1989.
K115 .....	All .....	June 8, 1989.
K116 .....	All .....	June 8, 1989.
K117 .....	Mixed with radioactive wastes .....	June 30, 1994.
K117 .....	All others .....	Nov. 9, 1992.
K118 .....	Mixed with radioactive wastes .....	June 30, 1994.
K118 .....	All others .....	Nov. 9, 1992.
K123 .....	Mixed with radioactive wastes .....	June 30, 1994.

K123 .....	All others .....	Nov. 9, 1992.
K124 .....	Mixed with radioactive wastes .....	June 30, 1994.
K124 .....	All others .....	Nov. 9, 1992.
K125 .....	Mixed with radioactive wastes .....	June 30, 1994.
K125 .....	All others .....	Nov. 9, 1992.
K126 .....	Mixed with radioactive wastes .....	June 30, 1994.
K126 .....	All others .....	Nov. 9, 1992.
K131 .....	Mixed with radioactive wastes .....	June 30, 1994.
K131 .....	All others .....	Nov. 9, 1992.
K132 .....	Mixed with radioactive wastes .....	June 30, 1994.
K132 .....	All others .....	Nov. 9, 1992.
K136 .....	Mixed with radioactive wastes .....	June 30, 1994.
K136 .....	All others .....	Nov. 9, 1992.
K141 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K141 .....	All others .....	Dec. 19, 1994.
K142 .....	Mixed with radioactive wastes .....	Sep. 19, 1996..
K142 .....	All others .....	Dec. 19, 1994.
K143 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K143 .....	All others .....	Dec. 19, 1994.
K144 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K144 .....	All others .....	Dec. 19, 1994.
K145 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K145 .....	All others .....	Dec. 19, 1994.
K147 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K147 .....	All others .....	Dec. 19, 1994.
K148 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K148 .....	All others .....	Dec. 19, 1994.
K149 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K149 .....	All others .....	Dec. 19, 1994.
K150 .....	Mixed with radioactive wastes .....	Sep. 19, 1996.
K150 .....	All others .....	Dec. 19, 1994.

K151	Mixed with radioactive wastes	Sep. 19, 1996.
K151	All others	Dec. 19, 1994.
K156	Mixed with radioactive wastes	Apr. 8, 1998.
K156	All others	July 8, 1996.
K157	Mixed with radioactive wastes	Apr. 8, 1998.
K157	All others	July 8, 1996.
K158	Mixed with radioactive wastes	Apr. 8, 1998.
K158	All others	July 8, 1996.
K159	Mixed with radioactive wastes	Apr. 8, 1998.
K159	All others	July 8, 1996.
K160	Mixed with radioactive wastes	Apr. 8, 1998.
K160	All others	July 8, 1996.
K161	Mixed with radioactive wastes	Apr. 8, 1998.
K161	All others	July 8, 1996.
P001	All	Aug. 8, 1990.
P002	All	Aug. 8, 1990.
P003	All	Aug. 8, 1990.
P004	All	Aug. 8, 1990.
P005	All	Aug. 8, 1990.
P006	All	Aug. 8, 1990.
P007	All	Aug. 8, 1990.
P008	All	Aug. 8, 1990.
P009	All	Aug. 8, 1990.
P010	Wastewater	Aug. 8, 1990.
P010	Nonwastewater	May 8, 1992.
P011	Wastewater	Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All	June 8, 1989.

P014 .....	All .....	Aug. 8, 1990.
P015 .....	All .....	Aug. 8, 1990.
P016 .....	All .....	Aug. 8, 1990.
P017 .....	All .....	Aug. 8, 1990.
P018 .....	All .....	Aug. 8, 1990.
P020 .....	All .....	Aug. 8, 1990.
P021 .....	All .....	June 8, 1989.
P022 .....	All .....	Aug. 8, 1990.
P023 .....	All .....	Aug. 8, 1990.
P024 .....	All .....	Aug. 8, 1990.
P026 .....	All .....	Aug. 8, 1990.
P027 .....	All .....	Aug. 8, 1990.
P028 .....	All .....	Aug. 8, 1990.
P029 .....	All .....	June 8, 1989.
P030 .....	All .....	June 8, 1989.
P031 .....	All .....	Aug. 8, 1990.
P033 .....	All .....	Aug. 8, 1990.
P034 .....	All .....	Aug. 8, 1990.
P036 .....	Wastewater .....	Aug. 8, 1990.
P036 .....	Nonwastewater .....	May 8, 1992. .
P037 .....	All .....	Aug. 8, 1990.
P038 .....	Wastewater .....	Aug. 8, 1990.
P038 .....	Nonwastewater .....	May 8, 1992.
P039 .....	All .....	June 8, 1989.
P040 .....	All .....	June 8, 1989.
P041 .....	All .....	June 8, 1989.
P042 .....	All .....	Aug. 8, 1990.
P043 .....	All .....	June 8, 1989.
P044 .....	All .....	June 8, 1989.
P045 .....	All .....	Aug. 8, 1990.
P046 .....	All .....	Aug. 8, 1990.



P047 .....	All .....	Aug. 8, 1990.
P048 .....	All .....	Aug. 8, 1990.
P049 .....	All .....	Aug. 8, 1990.
P050 .....	All .....	Aug. 8, 1990.
P051 .....	All .....	Aug. 8, 1990.
P054 .....	All .....	Aug. 8, 1990.
P056 .....	All .....	Aug. 8, 1990.
P057 .....	All .....	Aug. 8, 1990.
P058 .....	All .....	Aug. 8, 1990.
P059 .....	All .....	Aug. 8, 1990.
P060 .....	All .....	Aug. 8, 1990.
P062 .....	All .....	June 8, 1989.
P063 .....	All .....	June 8, 1989.
P064 .....	All .....	Aug. 8, 1990.
P065 .....	Wastewater .....	Aug. 8, 1990.
P065 .....	Nonwastewater .....	May 8, 1992.
P066 .....	All .....	Aug. 8, 1990.
P067 .....	All .....	Aug. 8, 1990.
P068 .....	All .....	Aug. 8, 1990.
P069 .....	All .....	Aug. 8, 1990.
P070 .....	All .....	Aug. 8, 1990.
P071 .....	All .....	June 8, 1989.
P072 .....	All .....	Aug. 8, 1990.
P073 .....	All .....	Aug. 8, 1990.
P074 .....	All .....	June 8, 1989.
P075 .....	All .....	Aug. 8, 1990.
P076 .....	All .....	Aug. 8, 1990.
P077 .....	All .....	Aug. 8, 1990.
P078 .....	All .....	Aug. 8, 1990.
P081 .....	All .....	Aug. 8, 1990.
P082 .....	All .....	Aug. 8, 1990.

P084 .....	All .....	Aug. 8, 1990.
P085 .....	All .....	June 8, 1989.
P087 .....	All .....	May 8, 1992.
P088 .....	All .....	Aug. 8, 1990.
P089 .....	All .....	June 8, 1989.
P092 .....	Wastewater .....	Aug. 8, 1990.
P092 .....	Nonwastewater .....	May 8, 1992.
P093 .....	All .....	Aug. 8, 1990.
P094 .....	All .....	June 8, 1989.
P095 .....	All .....	Aug. 8, 1990.
P096 .....	All .....	Aug. 8, 1990.
P097 .....	All .....	June 8, 1989.
P098 .....	All .....	June 8, 1989.
P099 (silver) .....	Wastewater .....	Aug. 8, 1990.
P099 .....	All others .....	June 8, 1989.
P101 .....	All .....	Aug. 8, 1990.
P102 .....	All .....	Aug. 8, 1990.
P103 .....	All .....	Aug. 8, 1990.
P104 (silver) .....	Wastewater .....	Aug. 8, 1990.
P104 .....	All others .....	June 8, 1989.
P105 .....	All .....	Aug. 8, 1990.
P106 .....	All .....	June 8, 1989.
P108 .....	All .....	Aug. 8, 1990.
P109 .....	All .....	June 8, 1989.
P110 .....	All .....	Aug. 8, 1990.
P111 .....	All .....	June 8, 1989.
P112 .....	All .....	Aug. 8, 1990.
P113 .....	All .....	Aug. 8, 1990.
P114 .....	All .....	Aug. 8, 1990.
P115 .....	All .....	Aug. 8, 1990.
P116 .....	All .....	Aug. 8, 1990.

P118 .....	All .....	Aug. 8, 1990.
P119 .....	All .....	Aug. 8, 1990.
P120 .....	All .....	Aug. 8, 1990.
P121 .....	All .....	June 8, 1989.
P122 .....	All .....	Aug. 8, 1990.
P123 .....	All .....	Aug. 8, 1990.
P127 .....	Mixed with radioactive waste .....	Apr. 8, 1998.
P127 .....	All others .....	July 8, 1996.
P128 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P128 .....	All others .....	July 8, 1996.
P185 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P185 .....	All others .....	July 8, 1996.
P188 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P188 .....	All others .....	July 8, 1996.
P189 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P189 .....	All others .....	July 8, 1996.
P190 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P190 .....	All others .....	July 8, 1996.
P191 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P191 .....	All others .....	July 8, 1996.
P192 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P192 .....	All others .....	July 8, 1996.
P194 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P194 .....	All others .....	July 8, 1996.
P196 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P196 .....	All others .....	July 8, 1996.
P197 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P197 .....	All others .....	July 8, 1996.
P198 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P198 .....	All others .....	July 8, 1996.
P199 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.

P199 .....	All others .....	July 8, 1996.
P201 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P201 .....	All others .....	July 8, 1996.
P202 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P202 .....	All others .....	July 8, 1996.
P203 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P203 .....	All others .....	July 8, 1996.
P204 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P204 .....	All others .....	July 8, 1996.
P205 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
P205 .....	All others .....	July 8, 1996.
U001 .....	All .....	Aug 8, 1990.
U002 .....	All .....	Aug 8, 1990.
U003 .....	All .....	Aug 8, 1990.
U004 .....	All .....	Aug 8, 1990.
U005 .....	All .....	Aug. 8, 1990.
U006 .....	All .....	Aug. 8, 1990.
U007 .....	All .....	Aug. 8, 1990.
U008 .....	All .....	Aug. 8, 1990.
U009 .....	All .....	Aug. 8, 1990.
U010 .....	All .....	Aug. 8, 1990.
U011 .....	All .....	Aug. 8, 1990.
U012 .....	All .....	Aug. 8, 1990.
U014 .....	All .....	Aug. 8, 1990.
U015 .....	All .....	Aug. 8, 1990.
U016 .....	All .....	Aug. 8, 1990.
U017 .....	All .....	Aug. 8, 1990.
U018 .....	All .....	Aug. 8, 1990.
U019 .....	All .....	Aug. 8, 1990.
U020 .....	All .....	Aug. 8, 1990.
U021 .....	All .....	Aug. 8, 1990.

U022 .....	All .....	Aug. 8, 1990.
U023 .....	All .....	Aug. 8, 1990.
U024 .....	All .....	Aug. 8, 1990.
U025 .....	All .....	Aug. 8, 1990.
U026 .....	All .....	Aug. 8, 1990.
U027 .....	All .....	Aug. 8, 1990.
U028 .....	All .....	June 8, 1989.
U029 .....	All .....	Aug. 8, 1990.
U030 .....	All .....	Aug. 8, 1990.
U031 .....	All .....	Aug. 8, 1990.
U032 .....	All .....	Aug. 8, 1990.
U033 .....	All .....	Aug. 8, 1990.
U034 .....	All .....	Aug. 8, 1990.
U035 .....	All .....	Aug. 8, 1990.
U036 .....	All .....	Aug. 8, 1990.
U037 .....	All .....	Aug. 8, 1990.
U038 .....	All .....	Aug. 8, 1990.
U039 .....	All .....	Aug. 8, 1990.
U041 .....	All .....	Aug. 8, 1990.
U042 .....	All .....	Aug. 8, 1990.
U043 .....	All .....	Aug. 8, 1990.
U044 .....	All .....	Aug. 8, 1990.
U045 .....	All .....	Aug. 8, 1990.
U046 .....	All .....	Aug. 8, 1990.
U047 .....	All .....	Aug. 8, 1990.
U048 .....	All .....	Aug. 8, 1990.
U049 .....	All .....	Aug. 8, 1990.
U050 .....	All .....	Aug. 8, 1990.
U051 .....	All .....	Aug. 8, 1990.
U052 .....	All .....	Aug. 8, 1990.
U053 .....	All .....	Aug. 8, 1990.

U055 .....	All .....	Aug. 8, 1990.
U056 .....	All .....	Aug. 8, 1990.
U057 .....	All .....	Aug. 8, 1990.
U058 .....	All .....	June 8, 1989.
U059 .....	All .....	Aug. 8, 1990.
U060 .....	All .....	Aug. 8, 1990.
U061 .....	All .....	Aug. 8, 1990.
U062 .....	All .....	Aug. 8, 1990.
U063 .....	All .....	Aug. 8, 1990.
U064 .....	All .....	Aug. 8, 1990.
U066 .....	All .....	Aug. 8, 1990.
U067 .....	All .....	Aug. 8, 1990.
U068 .....	All .....	Aug. 8, 1990.
U069 .....	All .....	June 30, 1992.
U070 .....	All .....	Aug. 8, 1990.
U071 .....	All .....	Aug. 8, 1990.
U072 .....	All .....	Aug. 8, 1990.
U073 .....	All .....	Aug. 8, 1990.
U074 .....	All .....	Aug. 8, 1990.
U075 .....	All .....	Aug. 8, 1990.
U076 .....	All .....	Aug. 8, 1990.
U077 .....	All .....	Aug. 8, 1990.
U078 .....	All .....	Aug. 8, 1990.
U079 .....	All .....	Aug. 8, 1990.
U080 .....	All .....	Aug. 8, 1990.
U081 .....	All .....	Aug. 8, 1990.
U082 .....	All .....	Aug. 8, 1990.
U083 .....	All .....	Aug. 8, 1990.
U084 .....	All .....	Aug. 8, 1990.
U085 .....	All .....	Aug. 8, 1990.
U086 .....	All .....	Aug. 8, 1990.

U087 .....	All .....	June 8, 1989.
U088 .....	All .....	June 8, 1989.
U089 .....	All .....	Aug. 8, 1990.
U090 .....	All .....	Aug. 8, 1990.
U091 .....	All .....	Aug. 8, 1990.
U092 .....	All .....	Aug. 8, 1990.
U093 .....	All .....	Aug. 8, 1990.
U094 .....	All .....	Aug. 8, 1990.
U095 .....	All .....	Aug. 8, 1990.
U096 .....	All .....	Aug. 8, 1990.
U097 .....	All .....	Aug. 8, 1990.
U098 .....	All .....	Aug. 8, 1990.
U099 .....	All .....	Aug. 8, 1990.
U101 .....	All .....	Aug. 8, 1990.
U102 .....	All .....	June 8, 1989.
U103 .....	All .....	Aug. 8, 1990.
U105 .....	All .....	Aug. 8, 1990.
U106 .....	All .....	Aug. 8, 1990.
U107 .....	All .....	June 8, 1989.
U108 .....	All .....	Aug. 8, 1990.
U109 .....	All .....	Aug. 8, 1990.
U110 .....	All .....	Aug. 8, 1990.
U111 .....	All .....	Aug. 8, 1990.
U112 .....	All .....	Aug. 8, 1990.
U113 .....	All .....	Aug. 8, 1990.
U114 .....	All .....	Aug. 8, 1990.
U115 .....	All .....	Aug. 8, 1990.
U116 .....	All .....	Aug. 8, 1990.
U117 .....	All .....	Aug. 8, 1990.
U118 .....	All .....	Aug. 8, 1990.
U119 .....	All .....	Aug. 8, 1990.

U120 .....	All .....	Aug. 8, 1990.
U121 .....	All .....	Aug. 8, 1990.
U122 .....	All .....	Aug. 8, 1990.
U123 .....	All .....	Aug. 8, 1990.
U124 .....	All .....	Aug. 8, 1990.
U125 .....	All .....	Aug. 8, 1990.
U126 .....	All .....	Aug. 8, 1990.
U127 .....	All .....	Aug. 8, 1990.
U128 .....	All .....	Aug. 8, 1990.
U129 .....	All .....	Aug. 8, 1990.
U130 .....	All .....	Aug. 8, 1990.
U131 .....	All .....	Aug. 8, 1990.
U132 .....	All .....	Aug. 8, 1990.
U133 .....	All .....	Aug. 8, 1990.
U134 .....	All .....	Aug. 8, 1990.
U135 .....	All .....	Aug. 8, 1990.
U136 .....	Wastewater .....	Aug. 8, 1990.
U136 .....	Nonwastewater .....	May 8, 1992.
U137 .....	All .....	Aug. 8, 1990.
U138 .....	All .....	Aug. 8, 1990.
U140 .....	All .....	Aug. 8, 1990.
U141 .....	All .....	Aug. 8, 1990.
U142 .....	All .....	Aug. 8, 1990.
U143 .....	All .....	Aug. 8, 1990.
U144 .....	All .....	Aug. 8, 1990.
U145 .....	All .....	Aug. 8, 1990.
U146 .....	All .....	Aug. 8, 1990.
U147 .....	All .....	Aug. 8, 1990.
U148 .....	All .....	Aug. 8, 1990.
U149 .....	All .....	Aug. 8, 1990.
U150 .....	All .....	Aug. 8, 1990.



U151 .....	Wastewater .....	Aug. 8, 1990.
U151 .....	Nonwastewater .....	May 8, 1992.
U152 .....	All .....	Aug. 8, 1990.
U153 .....	All .....	Aug. 8, 1990.
U154 .....	All .....	Aug. 8, 1990.
U155 .....	All .....	Aug. 8, 1990.
U156 .....	All .....	Aug. 8, 1990.
U157 .....	All .....	Aug. 8, 1990.
U158 .....	All .....	Aug. 8, 1990.
U159 .....	All .....	Aug. 8, 1990.
U160 .....	All .....	Aug. 8, 1990.
U161 .....	All .....	Aug. 8, 1990.
U162 .....	All .....	Aug. 8, 1990.
U163 .....	All .....	Aug. 8, 1990.
U164 .....	All .....	Aug. 8, 1990.
U165 .....	All .....	Aug. 8, 1990.
U166 .....	All .....	Aug. 8, 1990.
U167 .....	All .....	Aug. 8, 1990.
U168 .....	All .....	Aug. 8, 1990.
U169 .....	All .....	Aug. 8, 1990.
U170 .....	All .....	Aug. 8, 1990.
U171 .....	All .....	Aug. 8, 1990.
U172 .....	All .....	Aug. 8, 1990.
U173 .....	All .....	Aug. 8, 1990.
U174 .....	All .....	Aug. 8, 1990.
U176 .....	All .....	Aug. 8, 1990.
U177 .....	All .....	Aug. 8, 1990.
U178 .....	All .....	Aug. 8, 1990.
U179 .....	All .....	Aug. 8, 1990.
U180 .....	All .....	Aug. 8, 1990.
U181 .....	All .....	Aug. 8, 1990.

U182 .....	All .....	Aug. 8, 1990.
U183 .....	All .....	Aug. 8, 1990.
U184 .....	All .....	Aug. 8, 1990.
U185 .....	All .....	Aug. 8, 1990.
U186 .....	All .....	Aug. 8, 1990.
U187 .....	All .....	Aug. 8, 1990.
U188 .....	All .....	Aug. 8, 1990.
U189 .....	All .....	Aug. 8, 1990.
U190 .....	All .....	June 8, 1989.
U191 .....	All .....	Aug. 8, 1990.
U192 .....	All .....	Aug. 8, 1990.
U193 .....	All .....	Aug. 8, 1990.
U194 .....	All .....	June 8, 1989.
U196 .....	All .....	Aug. 8, 1990.
U197 .....	All .....	Aug. 8, 1990.
U200 .....	All .....	Aug. 8, 1990.
U201 .....	All .....	Aug. 8, 1990.
U202 .....	All .....	Aug. 8, 1990.
U203 .....	All .....	Aug. 8, 1990.
U204 .....	All .....	Aug. 8, 1990.
U205 .....	All .....	Aug. 8, 1990.
U206 .....	All .....	Aug. 8, 1990.
U207 .....	All .....	Aug. 8, 1990.
U208 .....	All .....	Aug. 8, 1990.
U209 .....	All .....	Aug. 8, 1990.
U210 .....	All .....	Aug. 8, 1990.
U211 .....	All .....	Aug. 8, 1990.
U213 .....	All .....	Aug. 8, 1990.
U214 .....	All .....	Aug. 8, 1990.
U215 .....	All .....	Aug. 8, 1990.
U216 .....	All .....	Aug. 8, 1990.

U217 .....	All .....	Aug. 8, 1990.
U218 .....	All .....	Aug. 8, 1990.
U219 .....	All .....	Aug. 8, 1990.
U220 .....	All .....	Aug. 8, 1990.
U221 .....	All .....	June 8, 1989.
U222 .....	All .....	Aug. 8, 1990.
U223 .....	All .....	June 8, 1989.
U225 .....	All .....	Aug. 8, 1990.
U226 .....	All .....	Aug. 8, 1990.
U227 .....	All .....	Aug. 8, 1990.
U228 .....	All .....	Aug. 8, 1990.
U234 .....	All .....	Aug. 8, 1990.
U235 .....	All .....	June 8, 1989.
U236 .....	All .....	Aug. 8, 1990.
U237 .....	All .....	Aug. 8, 1990.
U238 .....	All .....	Aug. 8, 1990.
U239 .....	All .....	Aug. 8, 1990.
U240 .....	All .....	Aug. 8, 1990.
U243 .....	All .....	Aug. 8, 1990.
U244 .....	All .....	Aug. 8, 1990.
U246 .....	All .....	Aug. 8, 1990.
U247 .....	All .....	Aug. 8, 1990.
U248 .....	All .....	Aug. 8, 1990.
U249 .....	All .....	Aug. 8, 1990.
U271 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U271 .....	All others .....	July 8, 1996.
U277 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U277 .....	All others .....	July 8, 1996.
U278 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U278 .....	All others .....	July 8, 1996.
U279 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.

U279 .....	All others .....	July 8, 1996.
U280 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U280 .....	All others .....	July 8, 1996.
U328 .....	Mixed with radioactive wastes .....	June 30, 1994.
U328 .....	All others .....	Nov. 9, 1992.
U353 .....	Mixed with radioactive wastes .....	June 30, 1994.
U353 .....	All others .....	Nov. 9, 1992.
U359 .....	Mixed with radioactive wastes .....	June 30, 1994.
U359 .....	All others .....	Nov. 9, 1992.
U364 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U364 .....	All others .....	July 8, 1996.
U365 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U365 .....	All others .....	July 8, 1996.
U366 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U366 .....	All others .....	July 8, 1996.
U367 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U367 .....	All others .....	July 8, 1996.
U372 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U372 .....	All others .....	July 8, 1996.
U373 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U373 .....	All others .....	July 8, 1996.
U375 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U375 .....	All others .....	July 8, 1996.
U376 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U376 .....	All others .....	July 8, 1996.
U377 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U377 .....	All others .....	July 8, 1996.
U378 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U378 .....	All others .....	July 8, 1996.
U379 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U379 .....	All others .....	July 8, 1996.

U381 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U381 .....	All others .....	July 8, 1996.
U382 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U382 .....	All others .....	July 8, 1996.
U383 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U383 .....	All others .....	July 8, 1996.
U384 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U384 .....	All others .....	July 8, 1996.
U385 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U385 .....	All others .....	July 8, 1996.
U386 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U386 .....	All others .....	July 8, 1996.
U387 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U387 .....	All others .....	July 8, 1996.
U389 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U389 .....	All others .....	July 8, 1996.
U390 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U390 .....	All others .....	July 8, 1996.
U391 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U391 .....	All others .....	July 8, 1996.
U392 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U392 .....	All others .....	July 8, 1996.
U393 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U393 .....	All others .....	July 8, 1996.
U394 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U394 .....	All others .....	July 8, 1996.
U395 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U395 .....	All others .....	July 8, 1996.
U396 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U396 .....	All others .....	July 8, 1996.
U400 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.

U400 .....	All others .....	July 8, 1996.
U401 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U401 .....	All others .....	July 8, 1996.
U402 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U402 .....	All others .....	July 8, 1996.
U403 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U403 .....	All others .....	July 8, 1996.
U404 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U404 .....	All others .....	July 8, 1996.
U407 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U407 .....	All others .....	July 8, 1996.
U409 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U409 .....	All others .....	July 8, 1996.
U410 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U410 .....	All others .....	July 8, 1996.
U411 .....	Mixed with radioactive wastes .....	Apr. 8, 1998.
U411 .....	All others .....	July 8, 1996.

<sup>a</sup> This table does not include mixed radioactive wastes (from the First, Second, and Third Third rules) which received national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.

<sup>b</sup> The standard was revised in the Third Third Final Rule (55 FR 22520, June 1, 1990).

<sup>c</sup> The standard was revised in the Third Third Emergency Rule (58 FR 29860, May 24, 1993); the original effective date was August 8, 1990.

<sup>d</sup> The standard was revised in the Phase II Final Rule (59 FR 47982, Sept. 19, 1994); the original effective date was August 8, 1990.

<sup>e</sup> The standards for selected reactive wastes was revised in the Phase III Final Rule (61 FR 15566, Apr. 8, 1996); the original effective date was August 8, 1990.

**Table 2.--Summary of Effective Dates of Land Disposal Restrictions for Contaminated Soil and Debris (CSD)**

Restricted hazardous waste in CSD	Effective date
1. Solvent-(F001-F005) and dioxin-(F020-F023 and F026-F028) containing soil and debris from CERCLA response or RCRA corrective actions. ....	Nov. 8, 1988.
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents (F001-F005) or dioxins (F020-F023 and F026-F028). ....	Nov. 8, 1988.
3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration. ....	Aug. 8, 1990.
4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration. ....	June 8, 1991.

5. All soil and debris contaminated with Third Third wastes or, First or Second Third "soft hammer wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals; as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes. ....	May 8, 1992.
6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes. ....	Dec. 19, 1994.
7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359. ....	Dec. 19, 1994
8. Soil and debris contaminated with K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes. ....	July 8, 1996.
9. Soil and debris contaminated with K088 wastes. ....	Jan. 8, 1997.
10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes. ....	April 8, 1998.
11. Soil and debris contaminated with F032, F034, and F035. ....	May 12, 1997.

Note: Appendix VII is provided for the convenience of the reader.

## 21. Appendix VIII to Part 268 is revised to read as follows:

### Appendix VIII to Part 268--LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes

#### National Capacity LDR Variances for UIC Wastes<sup>a</sup>

Waste code	Waste category	Effective date
F001-F005 .....	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents.	Aug. 8, 1990.
D001 (except High TOC Ignitable Liquids Subcategory) <sup>c</sup> .	All .....	Feb. 10, 1994.
D001 (High TOC Ignitable Characteristic Liquids Subcategory).	Nonwastewater .....	Sept. 19, 1995.
D002 <sup>b</sup> .....	All .....	May 8, 1992.
D002 <sup>c</sup> .....	All .....	Feb. 10, 1994.
D003 (cyanides) .....	All .....	May 8, 1992.
D003 (sulfides) .....	All .....	May 8, 1992.
D003 (explosives, reactives) .....	All .....	May 8, 1992.
D007 .....	All .....	May 8, 1992.
D009 .....	Nonwastewater .....	May 8, 1992.
D012 .....	All .....	Sept. 19, 1995.
D013 .....	All .....	Sept. 19, 1995.
D014 .....	All .....	Sept. 19, 1995.
D015 .....	All .....	Sept. 19, 1995.

D016	All	Sept. 19, 1995.
D017	All	Sept. 19, 1995.
D018	All, including mixed with radioactive wastes.	Apr. 8, 1998.
D019	All, including mixed with radioactive wastes.	Apr. 8, 1998.
D020	All, including mixed with radioactive wastes.	Apr. 8, 1998.
D021	All, including mixed with radioactive wastes.	Apr. 8, 1998.
D022	All, including mixed with radioactive wastes.	Apr. 8, 1998.
D023	All, including mixed radioactive wastes	Apr. 8, 1998.
D024	All, including mixed radioactive wastes	Apr. 8, 1998.
D025	All, including mixed radioactive wastes	Apr. 8, 1998.
D026	All, including mixed radioactive wastes	Apr. 8, 1998.
D027	All, including mixed radioactive wastes	Apr. 8, 1998.
D028	All, including mixed radioactive wastes	Apr. 8, 1998.
D029	All, including mixed radioactive wastes	Apr. 8, 1998.
D030	All, including mixed radioactive wastes	Apr. 8, 1998.
D031	All, including mixed radioactive wastes	Apr. 8, 1998.
D032	All, including mixed radioactive wastes	Apr. 8, 1998.
D033	All, including mixed radioactive wastes	Apr. 8, 1998.
D034	All, including mixed radioactive wastes	Apr. 8, 1998.
D035	All, including mixed radioactive wastes	Apr. 8, 1998.
D036	All, including mixed radioactive wastes	Apr. 8, 1998.
D037	All, including mixed radioactive wastes	Apr. 8, 1998.
D038	All, including mixed radioactive wastes	Apr. 8, 1998.
D039	All, including mixed radioactive wastes	Apr. 8, 1998.
D040	All, including mixed radioactive wastes	Apr. 8, 1998.
D041	All, including mixed radioactive wastes	Apr. 8, 1998.
D042	All, including mixed radioactive wastes	Apr. 8, 1998.
D043	All, including mixed radioactive wastes	Apr. 8, 1998.
F007	All	June 8, 1991.
F032	All, including mixed radioactive wastes	May 12, 1999.
F034	All, including mixed radioactive wastes	May 12, 1999.



F035	All, including mixed radioactive wastes	May 12, 1999.
F037	All	Nov. 8, 1992.
F038	All	Nov. 8, 1992.
F039	Wastewater	May 8, 1992.
K009	Wastewater	June 8, 1991.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K013	Nonwastewater	June 8, 1991.
K013	Wastewater	May 8, 1992.
K014	All	May 8, 1992.
K016 (dilute)	All	June 8, 1991.
K049	All	Aug. 8, 1990.
K050	All	Aug. 8, 1990.
K051	All	Aug. 8, 1990.
K052	All	Aug. 8, 1990.
K062	All	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K088	All	Jan. 8, 1997.
K104	All	Aug. 8, 1990.
K107	All	Nov. 8, 1992.
K108	All	Nov. 9, 1992.
K109	All	Nov. 9, 1992.
K110	All	Nov. 9, 1992.
K111	All	Nov. 9, 1992.
K112	All	Nov. 9, 1992.
K117	All	June 30, 1995.
K118	All	June 30, 1995.
K123	All	Nov. 9, 1992.
K124	All	Nov. 9, 1992.

K125 .....	All .....	Nov. 9, 1992.
K126 .....	All .....	Nov. 9, 1992.
K131 .....	All .....	June 30, 1995.
K132 .....	All .....	June 30, 1995.
K136 .....	All .....	Nov. 9, 1992.
K141 .....	All .....	Dec. 19, 1994.
K142 .....	All .....	Dec. 19, 1994.
K143 .....	All .....	Dec. 19, 1994.
K144 .....	All .....	Dec. 19, 1994.
K145 .....	All .....	Dec. 19, 1994.
K147 .....	All .....	Dec. 19, 1994.
K148 .....	All .....	Dec. 19, 1994.
K149 .....	All .....	Dec. 19, 1994.
K150 .....	All .....	Dec. 19, 1994.
K151 .....	All .....	Dec. 19, 1994.
K156 .....	All .....	July 8, 1996.
K157 .....	All .....	July 8, 1996.
K158 .....	All .....	July 8, 1996.
K159 .....	All .....	July 8, 1996.
K160 .....	All .....	July 8, 1996.
K161 .....	All .....	July 8, 1996.
P127 .....	All .....	July 8, 1996.
P128 .....	All .....	July 8, 1996.
P185 .....	All .....	July 8, 1996.
P188 .....	All .....	July 8, 1996.
P189 .....	All .....	July 8, 1996.
P190 .....	All .....	July 8, 1996.
P191 .....	All .....	July 8, 1996.
P192 .....	All .....	July 8, 1996.
P194 .....	All .....	July 8, 1996.
P196 .....	All .....	July 8, 1996.

P197 .....	All .....	July 8, 1996.
P198 .....	All .....	July 8, 1996.
P199 .....	All .....	July 8, 1996.
P201 .....	All .....	July 8, 1996.
P202 .....	All .....	July 8, 1996.
P203 .....	All .....	July 8, 1996.
P204 .....	All .....	July 8, 1996.
P205 .....	All .....	July 8, 1996.
U271 .....	All .....	July 8, 1996.
U277 .....	All .....	July 8, 1996.
U278 .....	All .....	July 8, 1996.
U279 .....	All .....	July 8, 1996.
U280 .....	All .....	July 8, 1996.
U328 .....	All .....	Nov. 9, 1992.
U353 .....	All .....	Nov. 9, 1992.
U359 .....	All .....	Nov. 9, 1992.
U364 .....	All .....	July 8, 1996.
U365 .....	All .....	July 8, 1996.
U366 .....	All .....	July 8, 1996.
U367 .....	All .....	July 8, 1996.
U372 .....	All .....	July 8, 1996.
U373 .....	All .....	July 8, 1996.
U375 .....	All .....	July 8, 1996.
U376 .....	All .....	July 8, 1996.
U377 .....	All .....	July 8, 1996.
U378 .....	All .....	July 8, 1996.
U379 .....	All .....	July 8, 1996.
U381 .....	All .....	July 8, 1996.
U382 .....	All .....	July 8, 1996.
U383 .....	All .....	July 8, 1996.
U384 .....	All .....	July 8, 1996.

U385 .....	All .....	July 8, 1996.
U386 .....	All .....	July 8, 1996.
U387 .....	All .....	July 8, 1996.
U389 .....	All .....	July 8, 1996.
U390 .....	All .....	July 8, 1996.
U391 .....	All .....	July 8, 1996.
U392 .....	All .....	July 8, 1996.
U395 .....	All .....	July 8, 1996.
U396 .....	All .....	July 8, 1996.
U400 .....	All .....	July 8, 1996.
U401 .....	All .....	July 8, 1996.
U402 .....	All .....	July 8, 1996.
U403 .....	All .....	July 8, 1996.
U404 .....	All .....	July 8, 1996.
U407 .....	All .....	July 8, 1996.
U409 .....	All .....	July 8, 1996.
U410 .....	All .....	July 8, 1996.
U411 .....	All .....	July 8, 1996.

<sup>a</sup> Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.

<sup>b</sup> Deepwell injected D002 liquids with a pH less than 2 must meet the California List treatment standards on August 8, 1990.

<sup>c</sup> Managed in systems defined in 40 CFR 144.6(e) and 14.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection.

Note: This table is provided for the convenience of the reader.

>>>> Part 271 has not been included because it is not required as part of a State's Hazardous Waste Program. <<<<

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